Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 6-8 (canceled)

Claim 10 (canceled)

Claim 20 (canceled)

Claims 31-37 (canceled)

Claims 48-76 (canceled)

Claim 77 (new): A method for producing a parasite protein or fragment thereof in milk of a non-human transgenic mammal, comprising:

providing said non-human transgenic mammal whose genome comprises a modified nucleic acid sequence encoding said parasite protein or fragment thereof operably linked to a promoter which directs expression in a mammary gland, wherein said modified nucleic acid sequence has been modified by replacing one or more AT-containing codons of the nucleic acid sequence of said parasite protein or fragment thereof as it naturally occurs in a parasite with a codon or codons preferred by a mammalian cell for the purposes of expression and encoding the same parasite protein or fragment thereof as derived from said parasite; and allowing said non-human transgenic mammal to express said parasite protein or fragment thereof in its milk, to thereby produce said parasite protein or fragment thereof; and,

wherein said parasite protein or fragment thereof is a protein, polypeptide or peptide derived from the *Plasmodium falciparum* protein MSP-1.

Claim 78 (new): A method for producing a parasite protein or fragment thereof in milk of a non-human transgenic mammal, comprising:

providing said non-human transgenic mammal whose genome comprises a modified nucleic acid sequence encoding said parasite protein or fragment thereof operably linked to a promoter which directs expression in a mammary gland, wherein said modified nucleic acid sequence has been modified by replacing one or more AT-containing codons of the nucleic acid sequence of said parasite protein or fragment thereof as it naturally occurs in a parasite with a codon or codons preferred by a mammalian cell for the purposes of expression and encoding the same parasite protein or fragment thereof as derived from said parasite; and allowing said non-human transgenic mammal to express said parasite protein or fragment thereof in its milk, to thereby produce said parasite protein or fragment thereof; and,

wherein said modified nucleic acid sequence is modified to provide for the expression of a modified amino acid sequence such that there is at least one Asparagine to Glutamine change to eliminate at least one glycosylation site on said parasite protein or protein fragment thereof produced by said non-human transgenic mammal.

Claim 79 (new): A method for producing a parasite protein or fragment thereof in the milk of a non-human transgenic mammal, comprising:

providing said non-human transgenic mammal whose genome comprises a modified nucleic acid sequence encoding said parasite protein or fragment thereof operably linked to a promoter which directs expression in a mammary gland, wherein said nucleic acid sequence of said parasite protein or fragment thereof has been modified by replacing at least a portion of an AUUUA mRNA instability motif in a coding sequence of said parasite protein or fragment thereof as it naturally

occurs in a parasite with a codon or codons preferred by a mammalian cell for the purposes of expression so as to remove said AUUUA mRNA instability motif or prevent said AUUUA mRNA instability motif from destabilizing mRNAs encoding said parasite protein or fragment thereof while encoding an amino acid which is the same as the replaced portion of said AUUUA mRNA instability motif;

allowing said non-human transgenic mammal to express said parasite protein or fragment thereof in its milk, to thereby produce said parasite protein or fragment thereof, and wherein the naturally occurring nucleic acid sequence encoding said parasite protein or fragment thereof contains at least one AUUUA instability motif; and,

wherein said parasite protein or fragment thereof is a protein, polypeptide or peptide derived from the *Plasmodium falciparum* protein MSP-1.

Claim 80 (new): A method for producing a parasite protein or fragment thereof in the milk of a non-human transgenic mammal, comprising:

providing said non-human transgenic mammal whose genome comprises a modified nucleic acid sequence encoding said parasite protein or fragment thereof operably linked to a promoter which directs expression in a mammary gland, wherein said nucleic acid sequence of said parasite protein or fragment thereof has been modified by replacing at least a portion of an AUUUA mRNA instability motif in a coding sequence of said parasite protein or fragment thereof as it naturally occurs in a parasite with a codon or codons preferred by a mammalian cell for the purposes of expression so as to remove said AUUUA mRNA instability motif or prevent said AUUUA mRNA instability motif from destabilizing mRNAs encoding said parasite protein or fragment thereof while encoding an amino acid which is the same as the replaced portion of said AUUUA mRNA instability motif;

allowing said non-human transgenic mammal to express said parasite protein or fragment thereof in its milk, to thereby produce said parasite protein or fragment thereof, and wherein the naturally occurring nucleic acid sequence encoding said parasite protein or fragment thereof contains at least one AUUUA instability motif; and,

wherein said modified nucleic acid sequence is modified to provide for the expression of a modified amino acid sequence such that there is at least one Asparagine to Glutamine change to eliminate at least one glycosylation site on said parasite protein or protein fragment thereof produced by said non-human transgenic mammal.

Claim 81 (new): A method for producing a parasite protein or fragment thereof in the milk of a non-human transgenic mammal, comprising:

providing a non-human transgenic mammal whose genome comprises a modified nucleic acid sequence encoding said parasite protein or fragment thereof operably linked to a promoter which directs expression in a mammary gland, wherein said modified nucleic acid sequence has been modified by:

a) replacing at least a portion of an AUUUA mRNA instability motif in the coding sequence of said parasite protein or fragment thereof as it naturally occurs in a parasite with a codon or codons preferred by a mammalian cell for the purposes of expression so as to remove said AUUUA mRNA instability motif or prevent said AUUUA mRNA instability motif from destabilizing mRNAs encoding said parasite protein or fragment thereof while encoding the same amino acid as the replaced portion of said AUUUA mRNA instability motif;

b) replacing one or more AT-containing codons of said modified nucleic acid sequence as it naturally occurs in said parasite with a codon or codons preferred by a mammalian cell for the purposes of expression and encoding the same amino acid as the replaced codon;

c) allowing said non-human transgenic mammal to express said parasite protein or fragment thereof in its milk, to thereby produce said parasite protein or fragment thereof and wherein the naturally occurring nucleic acid sequence encoding said parasite protein or fragment thereof contains at least one AUUUA instability motif; and,

wherein said parasite protein or fragment thereof is a protein, polypeptide or peptide derived from the *Plasmodium falciparum* protein MSP-1.

Claim 82 (new): A method for producing a parasite protein or fragment thereof in the milk of a non-human transgenic mammal, comprising:

providing a non-human transgenic mammal whose genome comprises a modified nucleic acid sequence encoding said parasite protein or fragment thereof operably linked to a promoter which directs expression in a mammary gland, wherein said modified nucleic acid sequence has been modified by:

a) replacing at least a portion of an AUUUA mRNA instability motif in the coding sequence of said parasite protein or fragment thereof as it naturally occurs in a parasite with a codon or codons preferred by a mammalian cell for the purposes of expression so as to remove said AUUUA mRNA instability motif or prevent said

AUUUA mRNA instability motif from destabilizing mRNAs encoding said parasite protein or fragment thereof while encoding the same amino acid as the replaced portion of said AUUUA mRNA instability motif;

b) replacing one or more AT-containing codons of said modified nucleic acid sequence as it naturally occurs in said parasite with a codon or codons preferred by a mammalian cell for the purposes of expression and encoding the same amino acid as the replaced codon;

c) allowing said non-human transgenic mammal to express said parasite protein or fragment thereof in its milk, to thereby produce said parasite protein or fragment thereof and wherein the naturally occurring nucleic acid sequence encoding said parasite protein or fragment thereof contains at least one AUUUA instability motif; and,

wherein said modified nucleic acid sequence is modified to provide for the expression of a modified amino acid sequence such that there is at least one Asparagine to Glutamine change to eliminate at least one glycosylation site on said parasite protein or protein fragment thereof produced by said non-human transgenic mammal.

Claim 83 (new): A transgenic non-human mammal whose germline comprises a modified nucleic acid sequence encoding a parasite protein or fragment thereof operably linked to a promoter which directs expression in a mammary gland, wherein said modified nucleic acid sequence has been modified by replacing at least a portion of an AUUUA mRNA instability motif in a coding sequence as it naturally occurs in a parasite with a codon or codons preferred by a mammalian cell for the purposes of expression so as to remove

said AUUUA mRNA instability motif or prevent said AUUUA mRNA instability motif from destabilizing mRNAs encoding said parasite protein or fragment thereof while encoding the same amino acid as the replaced portion of said AUUUA mRNA instability motif and by replacing one or more AT-containing codons of the nucleic acid sequence of said parasite protein or fragment thereof as it naturally occurs in the parasite with a codon or codons preferred by a mammalian cell for the purposes of expression and encoding the same amino acid as the replaced codon, wherein said non-human transgenic mammal expresses said parasite protein or fragment thereof in its milk and wherein the naturally occurring nucleic acid sequence encoding said parasite protein or fragment thereof contains at least one AUUUA instability motif, and,

wherein said parasite protein or fragment thereof is a protein, polypeptide or peptide derived from the *Plasmodium falciparum* protein MSP-1.

Claim 84 (new): A transgenic non-human mammal whose germline comprises a modified nucleic acid sequence encoding a parasite protein or fragment thereof operably linked to a promoter which directs expression in a mammary gland, wherein said modified nucleic acid sequence has been modified by replacing at least a portion of an AUUUA mRNA instability motif in a coding sequence as it naturally occurs in a parasite with a codon or codons preferred by a mammalian cell for the purposes of expression so as to remove said AUUUA mRNA instability motif or prevent said AUUUA mRNA instability motif from destabilizing mRNAs encoding said parasite protein or fragment thereof while encoding the same amino acid as the replaced portion of said AUUUA mRNA instability motif and by replacing one or more AT-containing codons of the nucleic acid sequence of said parasite protein or fragment thereof as it naturally occurs in the parasite with a codon or codons preferred by a mammalian cell for the purposes of expression and encoding the same amino acid as the replaced codon, wherein said non-human transgenic mammal expresses said parasite protein or fragment thereof in its milk and wherein the naturally occurring nucleic acid sequence encoding said parasite protein or fragment thereof contains at least one AUUUA instability motif; and,

wherein said modified nucleic acid sequence is modified to provide for the expression of a modified amino acid sequence such that there is at least one Asparagine to Glutamine change to eliminate at least one glycosylation site on said parasite protein or protein fragment thereof produced by said non-human transgenic mammal.